

## **REMARKS**

Claims 1-3, 7-8, 13-18, and 23-24 have been cancelled, and claims 9, 19, and 22 have been amended. Claims 9-12 and 19-22 are pending in the application.

### ***Claim Rejections – 35 USC §112***

The Examiner rejects claims 13-17 under 35 U.S.C. 112, second paragraph. The cancellation of these claims renders the Examiner's rejection moot.

### ***Claim Rejections – 35 USC §102***

The Examiner rejects claims 9-12 and 19-22 under 35 U.S.C. 102(b) as being anticipated by US 5,809,109 (*Moyal*). Applicant respectfully traverses this rejection.

As described in the patent application, signals in a line card can fluctuate to high levels during the ringing mode, thus causing damage to one or more electronic components of the line card. One or more embodiments of the present invention are directed at reducing the potential of damage to electronic components in the line card during the ringing mode. By way of example, Figure 2 of the present application depicts a line card 10 that includes a DC cancellation loop 298 for processing voice signals. This loop may include one or more electrical components, such as an analog-to-digital converter 305, for processing signals. As explained in the patent application, and as shown in Figure 2, during the ringing mode, in order to reduce the voltage and/or current levels in the line card 10, one or more embodiments of the present invention are directed at coupling the VIN terminal 285 to CANC terminal 290 of the loop using a switch 319. By coupling these terminals in an inventive manner, more of the current flows through these terminals during the ringing mode, while lesser current flows through the DC cancellation loop

298, thereby protecting the electrical components (*e.g.*, A/D converter 305) in the loop from damage. Against this general backdrop, the claims are now specifically addressed.

Claim 9 is directed to an apparatus that includes a feedback path having an input and output terminal. Claim 9 further specifies that the feedback path includes an analog-to-digital converter for processing voice signals. The apparatus of claim 9 further calls for a switch for coupling the input and output terminal of the feedback path in response to receiving a control signal, wherein lesser current flows through the analog-to-digital converter in the feedback path as a result of coupling the input and output terminals. As explained in the patent application, the two terminals are coupled so that lesser current flows to the A/D converter, thereby reducing the potential of any damage.

The Examiner asserts that Moyal teaches all the features of claim 9. The Applicants respectfully disagree. The Examiner argues that the ring and tip terminals 18 and 20 of Moyal respectively correspond to the input and the output terminals recited in claim 9, and switch 105 of Moyal corresponds to the “switch” referenced in claim 9. The Examiner’s argument fails for several reasons. First, switch 105 in Moyal does not “couple” the ring and tip terminals 18, 20. Rather, as shown in Figure 4 of Moyal, switch 105 couples the Vin to the A/D converter 110 during the non-ringing state, and couples the output of PCD CKT 100 to the A/D converter 110 during the ringing state. In both the ringing state and non-ringing state, the ring and tip terminal 18, 20 remain coupled to the subscriber line 14, as can be seen more clearly in Figure 1 of Moyal. That is, the tip and ring terminals 18, 20 are not coupled to each other by the switch 105, as alleged by the Examiner. In contrast, claim 9 calls for the switch to couple the input and output

terminals of the feedback path in response to the control signal. The alleged coupling between the ring and tip terminals 18, 20 in Moyal is no different during the ringing mode (i.e. when the ring command is supplied to switch 105) than it is during the non-ringing mode. As such, contrary to the Examiner's suggestion, Moyal at least does not teach coupling the terminals in response to the control signal.

The Examiner's argument fails for yet another reason. Claim 9 further specifies that lesser current flows through the analog-to-digital converter in the feedback path as a result of coupling the input and output terminals. Moyal does not teach or suggest this feature. Rather, Moyal discloses that when the "ring command" is applied to the switch 105, the entire output of the PCD circuit 100 (which was received through the ring and tip terminals 18, 20) is sampled by the A/D converter 110. *See* Moyal, 3:19-25. In other words, Moyal does not teach or suggest lesser current flowing through the A/D converter as a result of the coupling of the terminals ("tip and ring" terminals, according to the Examiner). In contrast, one or more embodiments of the present invention cause lesser current to flow through the feedback path by coupling the terminals, thereby reducing the potential of harm to the electrical component(s). Moyal's arrangement does not allow this. For at least this additional reason, claim 9 is allowable. Moreover, for at least the reasons discussed above, claims depending from claim 9 are also allowable.

Other pending claims are allowable in view of the features recited therein. For example, claim 19 (and its dependent claims) are allowable because Moyal fails to at least teach the claimed feature of coupling the input and the output terminal of the first path in response to

receiving the control signal such that lesser current flows through at least one of the components while the input and output terminals are coupled. Similarly, claim 22 is allowable because Moyal at least fails to teach a means for coupling the input and the output terminal of the first path in response to receiving the control signal, wherein the coupling of the input and output terminals allows lesser current to flow through at least one of the components.

In light of the reasons presented above, a Notice of Allowance is respectfully solicited.

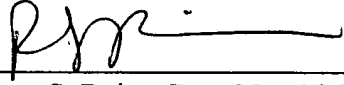
If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Houston, Texas telephone number (713) 934-4064 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

WILLIAMS, MORGAN & AMERSON, P.C.  
CUSTOMER NO. 23720

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By: \_\_\_\_\_

  
Ruben S. Bains, Reg. No. 46,532  
10333 Richmond, Suite 1100  
Houston, Texas 77042  
(713) 934-4064  
(713) 934-7011 (facsimile)  
ATTORNEY FOR APPLICANT(S)